AIR CONDITIONERS . . . . .

CONDITIONAIRS . . . . . .

BOILERS . . . . . .

OIL BURNERS . . . . . .

WATER HEATERS . . . . . .

COAL STOKERS . . . . . .

EVAPORATIVE CONDENSERS

CONDENSING UNITS . . . . .

EVAPORATOR COILS . . . . .

GM

GENERAL MOTORS

DELCO-FRIGIDAIRE

Automatic Heating·Cooling· and Air Conditioning Equipment

DELCO-FRIGIDAIRE CONDITIONING DIVISION
GENERAL MOTORS SALES CORPORATION, DAYTON, OHIO

26
9

DELCO-FRIGIDAIRE automatic heating, cooling and air conditioning products are backed by the research and engineering facilities of General Motors.

As a pioneer in the study and application of liquid fuels; as one of the leading manufacturers of modern refrigeration equipment; and as one of the outstanding research organizations in the world, General Motors is eminently qualified to design and manufacture air conditioning and automatic heating equipment.

As a result, Delco-Frigidaire products have passed the most grueling of all tests—successful operation in thousands of installations of every type, under all possible conditions.

As with other General Motors products, Delco-Frigidaire equipment is built with one end in view—to give more reliable, more economical and longer service to the user.

With these thoughts in mind, Delco-Frigidaire has prepared this brochure to illustrate in cursory fashion, the completeness of its line of automatic heating, cooling and air conditioning products, and to point out some of the outstanding contributions made to the industry by General Motors. Long strides indeed have been taken since Frigidaire brought out the first room cooler in 1929.

ROOM UNITS
SELF-CONTAINED TYPE

FRIGIDAIRE self-contained air conditioners, Models RSA and SC81 are designed for single room installations. Only power and a window connection are necessary for Model RSA; power, water and drain for Model SC81. Thermostatic control furnished as standard equipment on both models.

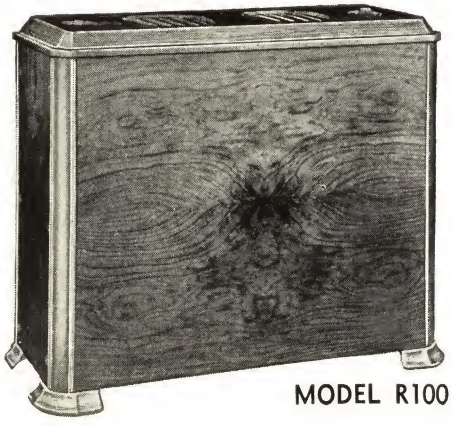
MODEL RSA

SPECIFICATIONS AND DIMENSIONS

Model	Nom. Capacity Tons	Cond. Medium	Overall Dimensions Inches			Filter	Net Weight Pounds
			Width	Depth	Height		
RSA	⅔	Air	34¾	18¾*	40¼	Std.	500
SC-81	⅔	Water	30⅛	23¾	42⅞	Extra	410

*Without window duct.

REMOTE TYPE



MODEL R100

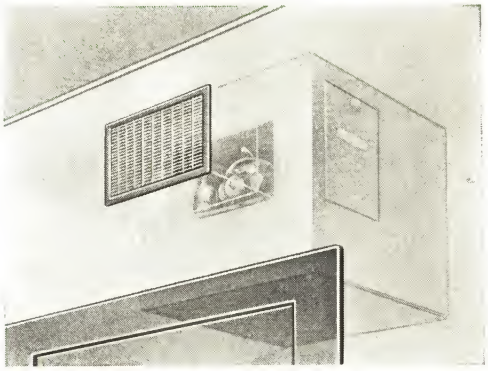
FRIGIDAIRE floor type air conditioners available in six models for single or multiple connection to remote condensing units. Cooling: Freon or chilled water; heating: hot water or steam. Filter attachments available as extra equipment.

SPECIFICATIONS AND DIMENSIONS

Model	Nom. Capacity Tons	Approx. B.t.u./Hr. Htg. Capacity		Overall Dimensions Inches			Net Weight Pounds
		Hot Water	Steam†	Width	Depth	Height	
R-50	½	....	....	26½	17⅛	26¾	120
RH-50	½	6300**	9600	26½	17⅛	26¾	130
RW-50	½	16000*	....	26½	17⅛	26¾	120
R-100	1	....	....	36½	17⅛	30	168
RH-100	1	12000**	18000	36½	17⅛	30	205
RW-100	1	36000*	....	36½	17⅛	30	147

*Capacity based on 70° F. entering air and 1 g.p.m. of 80° F. water.
†Capacity based on 70° F. entering air and steam at 1 pound.
**Capacity based on 70° F. entering air and 3½ g.p.m. of 180° F. water.

CONCEALED SUSPENDED UNITS



TYPICAL C50 INSTALLATION

FRIGIDAIRE concealed suspended type air conditioners are particularly adapted to installations singly or in multiple in hotel guest rooms, apartments, hospital rooms, homes and private offices where a concealed installation is desired. Units are usually suspended from closet ceiling or set on shelf and deliver air through a short duct and grille to the room. "C" series for Freon; "CW" series for chilled water; Heating medium, hot water. "H" and "V" following model number indicates Horizontal and Vertical models.

SPECIFICATIONS AND DIMENSIONS

Model	Nominal Tonnage	Overall Dimensions—Inches			Approx. B.t.u./Hr. *Htg. Capacity	Net Weight Pounds
		Width	Height	Depth		
C-50H	½	17½	16¾	19	.....	70
C-50V	½	23⅛	22⅞	14¼	.....	81
CW-50H	½	17½	16¾	19	14,500	60
CW-50V	½	23⅛	22⅞	14¼	13,700	74
C-100H	1	22¾	18¼	20¼	.....	90
C-100V	1	33⅛	25⅞	14¼	.....	124
CW-100H	1	22¾	18¼	20¼	30,600	83
CW-100V	1	33⅛	25⅞	14¼	28,500	122

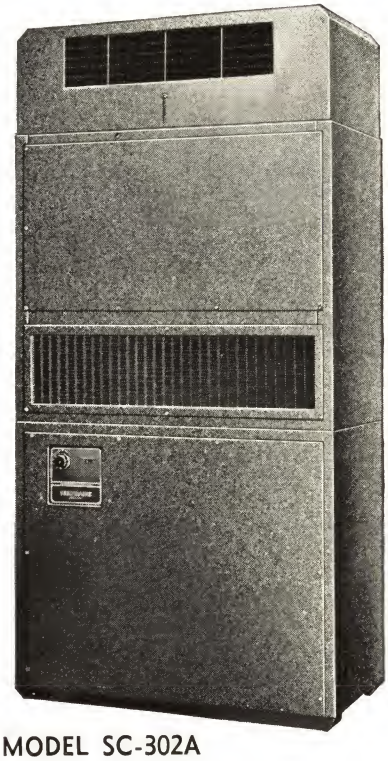
*Heating capacity on 70° F. entering air and 1 g.p.m. of 180° F. water.

SELF-CONTAINED STORE UNITS

MODEL SC-302A Frigidaire Air Conditioner is completely self-contained, incorporating the condensing unit, fans, coils, filters and controls within a compact attractive cabinet. It has a nominal rating of three tons capacity.

The unit provides cooling, dehumidification, filtering and air circulation. A heating coil may be added to furnish positive circulation of warm, filtered air. Thermostatic control of cooling temperatures is standard equipment.

With its compact design and attractive appearance, it may be installed directly within the conditioned area. Where other arrangements are preferable, the unit is so designed that the air intake grille may be located either in the front or the back of the cabinet, and the air delivery grilles and outlet hood may also be shifted to deliver the conditioned air in either direction. Where desired, the conditioner may be installed in an adjoining space, or in the basement and the cooled and dehumidified air distributed through a simple duct system. As with other Frigidaire unit equipment, it may be removed and reinstalled in a new location with maximum salvage valve.



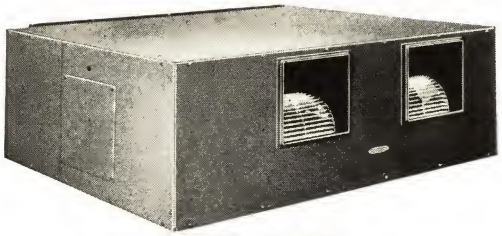
MODEL SC-302A

SPECIFICATIONS AND DIMENSIONS

Model	Condensing Unit*	Fan C.f.m.	No.	Filter Size—Ins.	Overall Dimensions—Inches			Net Wt. (Lbs.)
					Length	Width	Ht.	
SC-302A	3 H.p.	1200	2	20x10x1	22	44¾	88¼	1200

*After March 1st, 1939, 5 and 10 h.p. self-contained store units will be available.

SUSPENDED UNITS



MODEL SF-500

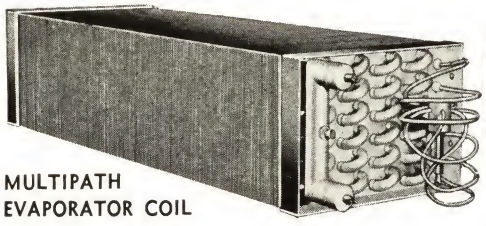
FRIGIDAIRE suspended air conditioners are used singly or in multiple in installations where floor space is at a premium, or where better distribution of conditioned air may be secured by delivery at or near the ceiling. They are designed for use with a remote condensing unit, which may be installed in the basement, or a nearby closet or storeroom.

Cooling, dehumidification, filtering and air circulation are provided. The larger sizes are available with a heating coil. Provision may be made for ventilation at the time the conditioner is installed. These units may be removed and re-installed in a new location with maximum salvage value. This feature makes them ideal for use in stores and offices occupied on a rental basis.

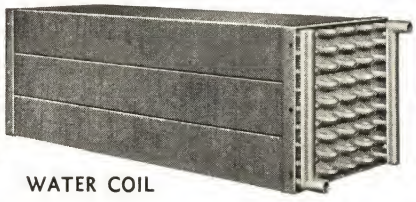
SPECIFICATIONS AND DIMENSIONS

Model	Nom. Cap. Tons	Air Del'y C.f.m.	Fans			Filters		Dimensions (Ins.)			Weight (Lbs.)	
			No.	Type	Motor H.p.	No.	Size (Ins.)	Width	Length	Ht.	Wt.	Shipping
SF-150	1½	525	1	Propeller	1/20	1	20x16x2	23	25⅛	18½	140	190
SF-300	3	1250	2	Centrifugal	1/5	2	25x16x2	51⅝	42⅜	16½	420	582
SF-500	5	1500 to 2000	2	Centrifugal	½ or ¾	2	25x16x2	58⅛	48¾	18⅜	535	700

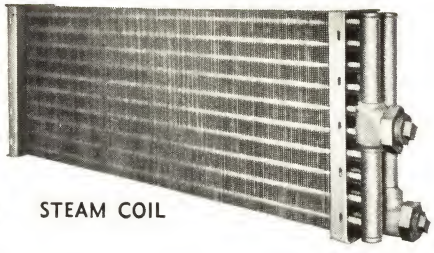
COILS—MULTI-PATH EVAPORATORS—WATER—STEAM



MULTIPATH EVAPORATOR COIL



WATER COIL



STEAM COIL

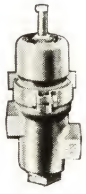
Table shows individual Frigidaire Freon, Water or Steam coils for built-up coil banks. For additional information, consult the local Delco-Frigidaire representative, or write directly to Delco-Frigidaire.

SPECIFICATIONS AND DIMENSIONS

Type Coil	Coil Length (Over Mounting Brackets) Inches	Rows Deep	Face Area (Square Feet)	
			46½ in. Coils	89 in. Coils
Freon	46½; 89	3, 4, 6, 8, 10	3.2; 4.7; 6.2	6.4; 9.4
Water	46½; 89	3, 6, 8, 10, 12	3.2; 4.7; 6.2	6.4; 9.4
Steam	46½; 89	1, 2	3.2; 4.7; 6.2	6.4; 9.4

CONTROL VALVES

MODEL CRV



The Frigidaire CRV Control Valve is designed to regulate refrigerant suction pressures under varying conditions of demand to prevent overloading of the condensing unit motor. Used when combined capacities of evaporator coils or remote units exceed the capacity of condensing unit and make unnecessary complex electrical control systems usually employed for that purpose.

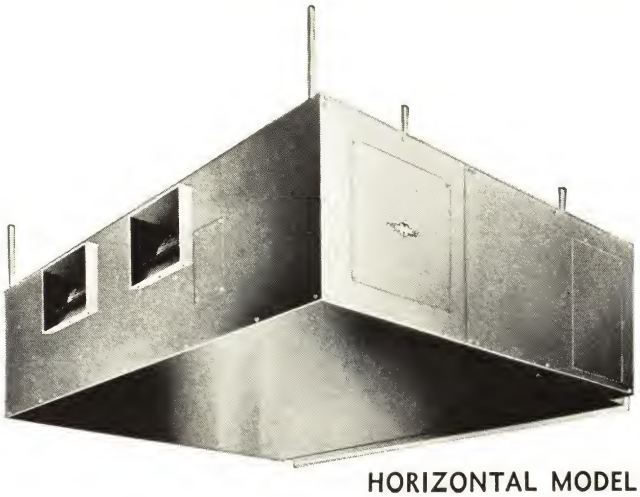
MODEL ERV

The Frigidaire ERV Control Valve is designed to maintain an adequate refrigerant suction pressure to prevent evaporator coil temperatures from dropping to the point where moisture on the surface of the coil would freeze. In multiple unit installations, as more and more of the cooling load is cut off, control becomes operative to maintain proper coil temperatures on units still in operation.

MODEL TEV

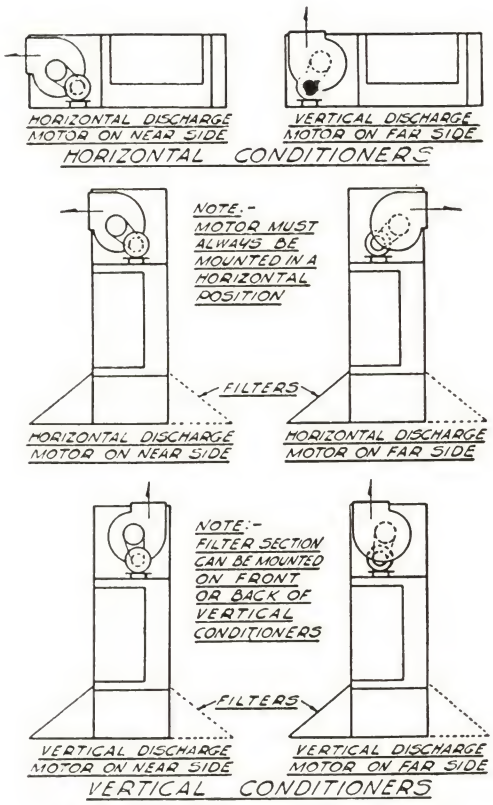
Frigidaire TEV (thermostatic expansion valves) control valves are designed especialy for use with Freon (F-12) refrigerant. They are fabricated from the highest quality nickel bronze, brass and stainless steel parts and are provided with correctly proportioned openings and automatic control elements for the accurate regulation of refrigerant flow.

CENTRAL SYSTEM AIR CONDITIONERS



HORIZONTAL MODEL

FRIGIDAIRE Central Duct Type Air Conditioners make available the advantages of a properly engineered unit, built under strict factory control, to meet the requirement of central duct air conditioning systems. These units are designed for wide flexibility of application to meet the specific conditions encountered on any particular installation. They may be installed as a horizontal suspended unit, or, with the addition of a base assembly and filter rack, as a vertical floor type conditioner. The figure at the right illustrates the adaptability of these central duct type air conditioners to meet individual installation problems.



VARIOUS POSITIONS FOR FAN DISCHARGE AND FILTERS

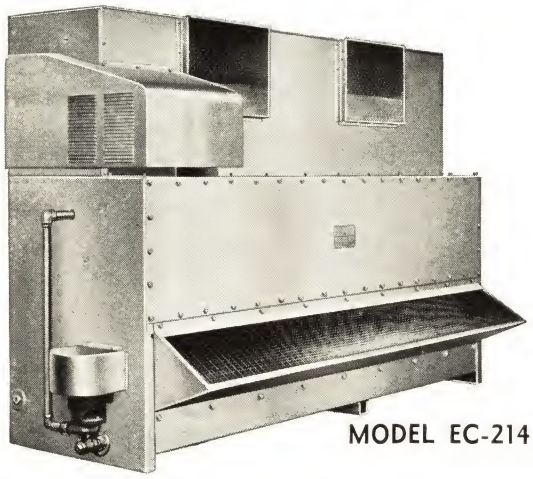
These Frigidaire Air Conditioners may be used to provide summer cooling and dehumidification, with circulation, filtering and ventilation, or complete year 'round service, including heating and humidification. In design, proper balance has been maintained between air delivery, coil capacity and filter area to assure maximum operating results.

In addition to the direct expansion evaporator coil for Freon, Frigidaire Central Duct Type Conditioners are also available with a water coil, for use on circulating chilled water air conditioning systems. With a wide range of capacities available, these units may be used singly to provide conditioning for the entire installation, or in multiple where there are a number of individual areas to be served, each presenting varying loads.

SPECIFICATIONS AND DIMENSIONS

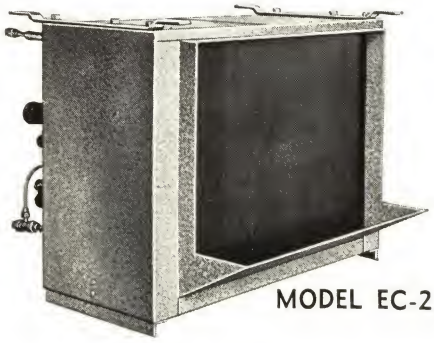
Model	Nom. Cap. Tons	Fans		Nom. Motor H.p.	Filters		Coils (Freon) Face Area Sq. Ft.	Overall Dimensions Inches			Net Wt. Lbs. With 6-row Coil (Approx.)
		No. Fans	Nom. Air Delivery C.f.m.		No.	Size, In.		Depth	Width	Ht.	
HORIZONTAL UNITS											
DF-62	6	1	1500-2000	¾	3	16x25	4.7	67⅞	58¾	27⅛	824
DF-122	12	2	3000-4000	1½	6	16x25	9.4	67⅞	101⅛	27⅛	1231
DF-182	18	2	5000-7000	3	10	16x20	15.8	75⅜	101⅛	34⅝	1593
DF-242	24	2	7500-10000	5	10	20x20	19.2	76	101⅛	42¼	1936
VERTICAL UNITS											
DF-62V	6	1	1500-2000	¾	3	16x25	4.7	48 5/16	59⅝	79 3/16	929
DF-122V	12	2	3000-4000	1½	6	16x25	9.4	48 5/16	102	79 3/16	1441
DF-242V	18	2	5000-7000	3	10	16x20	15.8	61⅛	102	91⅝	1843
DF-182V	24	2	7500-10000	5	10	20x20	19.2	77 1/16	102	96¼	2211

EVAPORATIVE CONDENSERS



MODEL EC-214

FRIGIDAIRE Evaporative Condensers are designed for use with Frigidaire Air Conditioning Condensing Units. The use of these units reduces necessary water consumption to a small fraction of that required by regular water cooled types of installations and makes it possible to provide economical and efficient air conditioning installations in localities where water is scarce, of poor quality, available only at high rates, or where usage is restricted.



MODEL EC-2

Frigidaire Evaporative Condensers are available in six sizes and three models. They are adaptable to a wide variety of installation requirements and because of the high efficiency in operation, provide the maximum in cooling capacity.*

Frigidaire Evaporative Condensers are a combination of a forced draft cooling tower and refrigerant condenser. Condensing is obtained by means of a combination of air flow and evaporation of water sprayed over the condensing surfaces. The capacity is dependent on the wet bulb temperature of the entering air as well as the refrigerant temperature in the condensing coil.

In the operation of all models except the EC2 and EC16, the pump draws water from the water pan and discharges it above the condensing coils through spray nozzles. These nozzles distribute the water uniformly over the condensing coils. A large excess of water is used to keep the coil surface clean and maintain the proper rate of heat transfer. Make-up water is automatically supplied to replace the water which has been evaporated, to provide an overflow for the removal of dirt, to prevent excessive deposition of lime on the coil surfaces and to reduce the acidity of the recirculated water.

In specifying evaporative condensers, note that the rated quantity of air should be handled, no air should be recirculated through the unit, consideration should be given to the direction and force of prevailing winds, and if the unit is installed outside the structure, protection must be provided for operating mechanism and to prevent freeze-ups during winter months.

Frigidaire Evaporative Condensers are furnished in six nominal capacity sizes of 3, 6, 10, 20, 30 and 40 tons. All units are arranged for floor mounting except the EC-2 which is arranged for suspension mounting.

*They are ideal for use in stores and buildings occupied on a rental basis as they may be removed and re-installed in a new location with maximum salvage value.

SPECIFICATIONS AND DIMENSIONS

Model	Average Water Consumption G.p.h.	Fan Motor**		Pump Motor** H.p.	Dimensions Overall Inches			Operating Wgt. Pounds (Approx.)
		H.p.	C.f.m.		L.	W.	H.	
EC-2	25	1/6	1,600	..	31	32 1/2	25 1/4	215
EC-16	16	1/2	2,400	..	51 3/4	42 1/4	57 3/8	1050
EC-111	20	3/4	2,500	1/4	60 7/8	42 1/2†	76 3/8	1528
EC-212	40	1 1/2	5,000	1/4	96 7/8	44 †	76 3/8	2690
EC-213	60	1 1/2	7,500	1/3	131 1/8	47 †	82 3/8	4240
EC-214	80	2	10,000	1/2	131 1/8	55 3/8†	84 1/2	5385

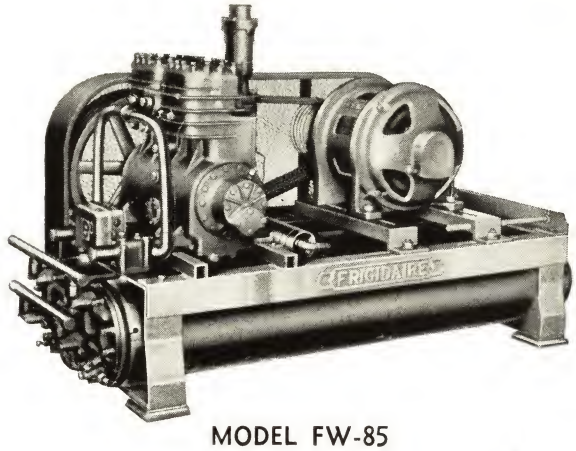
**Ratings based on 110 or 220 volt, 60 cycle, AC, single phase or 220-440 volt, 3 phase.
†Dimensions based on air discharge and intake on same side of unit. If discharge is on opposite side, fan motor over-hang increases this dimension 10 inches on the EC-111, 212 and 213, and 7 inches on the EC-214 unit.

FRIGIDAIRE CONDENSING UNITS

FRIGIDAIRE Air Conditioning Condensing Units are designed specifically for air conditioning service. They are built to take full advantage of the favorable operating characteristics of Freon, the air conditioning refrigerant, developed and made available to the industry through the collaboration of Frigidaire engineers.

These units combine General Motors' research experience with Frigidaire's own background as a pioneer and world's leading producer of mechanical refrigeration equipment. They give balanced performance of the air conditioning system as a whole when used with Frigidaire remote units, multipath evaporator coils, or Frigidaire central duct air conditioners.

As a result they produce more cooling per dollar of water cost and per kilowatt of power consumed. Frigidaire Air Conditioning Condensing Units are available from 1/3 to 50 H.P. in size, for use with evaporative condensers, water towers or city water, and in air cooled models.



MODEL FW-85

SPECIFICATIONS AND DIMENSIONS

Model	Motor H.p.	No. Cyl.	Dimensions Overall Inches			Net Weight Lbs.
			Length	Depth	Height	
WATER COOLED MODELS						
FW-70	5 or 7½	2	65	22¼	40⅝	991
FW-80	7½ or 10	4	65	31	40⅝	1350
FW-85	10 or 15	4	66	31	40⅝	1695
FW-91	15 or 20	6	76	35⅝	48½	2831
FW-102	20 or 25	8	84¾	35	47	3087
FW30-9D	30	4	102½	58½	75⅝	5000
FW40-9D	40	4	102½	58½	75⅝	5300
FW50-9D	50	4	102½	58½	75⅝	5600
EVAPORATIVE CONDENSER MODELS						
FE-70	5 or 7½	2	53½	22¼	33½	550
FE-80	7½ or 10	4	57½	31	33½	986
FE-85	10 or 15	4	57½	31	33½	1098
FE-91	15 or 20	6	71	35⅝	36½	1833
FE-101	20 or 25	8	71	35⅝	36½	2072
FE30-9D	30	4	80½	58½	58⅝	3600
FE40-9D	40	4	80½	58½	58⅝	3900
FE50-9D	50	4	80½	58½	58⅝	4200

FEATURES OF FRIGIDAIRE AUTOMOTIVE TYPE COMPRESSORS

SPECIAL design to provide close fit between piston and top of cylinder at highest point of stroke.

Frigidaire design dome type cylinder head for free passage of gases leaving the cylinder.

Special design exhaust valve which eliminates straining of the valve material itself.

Balanced flywheels.

V-grooves for flywheel belts positively aligned and of accurate depth.

Frigidaire positive closure shaft seal cushioned in oilproof Neoprene.

Drop forged connecting rods, rifle drilled for oil passage.

Special reverse fine mesh screen filters all oil circulated through the pressure lubrication system by the oil pump.

Bearings of extra large surface.

Pistons and cylinder walls honed and polished to an accuracy of one-half of one thousandth of an inch.

Special design oil pump furnishes full pressure lubrication to bearings.

An oil scraper ring is provided on each piston to control the amount of oil on the cylinder walls.

Trunked piston design allows gas to enter at side of cylinder without first passing through crankcase.

Compressor castings are made of a special close grained, long wearing, non-porous alloy.

Two compression rings are used on each piston to prevent leakage of gas being compressed.

Cylinder block castings are finished to assist in rapid dissipation of heat from the compressed refrigerant.

Piston pins tightly fitted to pistons and locked in place, preventing motion at any place except bearing.

26
9

CONVERSION EQUIPMENT

DELCO OIL BURNER

MODEL DR

THE Delco Oil Burner employs the highly efficient pressure atomizing method of breaking the liquid fuel into fine particules for complete combustion. The Delco "Thin-Mix" fuel control governs oil flow, maintaining a uniform pressure at all times and preventing oil dribble at the end of a period of operation.

In the Delco Oil Burner with the Rotopower unit, all rotating parts are built as an integral unit on the motor shaft. The housing is a one-piece casting, providing rigid support for the operating mechanism. Delco Oil Burners are available in 5 sizes in standard voltage characteristics with combustion rates from 1-30 gallons per hour or a capacity range from 440 to 12,000 square feet of steam, E.D.R.

SPECIFICATIONS AND DIMENSIONS

Model	Capacity B.t.u./Hr.	Output of Boiler or Furnace		Gal/Hr.		Motor			Pump		Strainer Area Sq. In.	Net Wt.
		E.d.r. Steam	E.d.r. H. W.	Min.	Max.	H.p.	Watts	R.p.m.	Lift Ft.	Cap. G.p.h.		
DR-1	105,600	440	700	1.0	1.35	1/8**	135	1,740	8	13	17	100
DR*	216,000	900	1,440	1.35	2.75	1/8**	135	1,740	8	13	17	100
D-12	559,200	2,330	3,725	2.5	7.0	1/6†	160	1,735	8	13	36	115
D-34	1,296,000	5,400	8,600	7.0	16.5	1/3*†	415	1,750	13	90	49.5	298
D-44	2,880,000	12,000	19,200	15.0	30.0	3/4*†	760	1,750	13	90	49.5	383

**Available in 110 volt, 60 cycle, A.C. only
†Ratings based on 110 volt 60 cycle A.C. Also available in odd cycle or 110 volt D.C.
*†Ratings based on 110 volt or 220 volt 60 cycle A.C. D-34 available in 110 or 220 volt D.C. D-44 220 volt only. Also available in 25 cycle.
*Model DX, comparable to Model DR in capacity, is available for 110 volt, 25, 40 or 50 cycle A.C. and for 110 volt D.C.

THE DELCO STOKER


MODEL SD-30

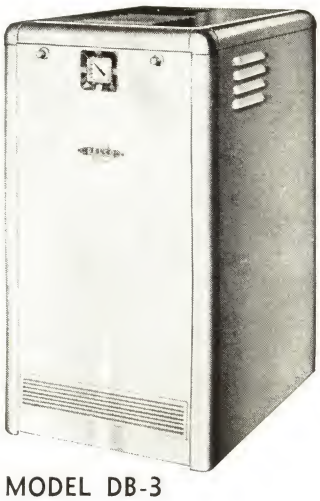
THE Delco Stoker is designed to provide automatic firing for coal-fired domestic heating plants. The line consists of three models in two sizes, which burn bituminous coal and are so sized as to completely cover every domestic and small commercial heating application.

Delco Stokers are of the underfeed, screw type with intermittent coal feed. Many exclusive features are incorporated to minimize the time and effort of attention and to provide uninterrupted heating service. Sectional tuyeres; coal control for changing the firing rate; automatic air control, rubber-lined corrosion-resistant hopper, hopper gas eliminator and sound insulated mechanism in the deluxe models; are but a few. Complete automatic controls are standard equipment on all models.

SPECIFICATIONS AND DIMENSIONS

Model	Type	Lbs. Per Hr.	No. Speeds	Lbs. Hopper Cap.	Max. Ratings			Dimensions Overall Inches			Air Control	Net Wt.
					Sq. Ft. Steam	Sq. Ft. Ht. Water	Sq. In. Warm Air	Width	Length	Height		
S-30	Std.	10-20-30	3	300	900	1,440	1,490	25	79 11/16	32 5/8	Semiautomatic	426
SD-30	DeLuxe	10-20-30	3	300	900	1,440	1,490	25	79 11/16	32 5/8	Automatic	431
SD-50	DeLuxe	17-34-51	3	400	1,500	2,400	2,500	25	84 13/16	37 5/8	Automatic	470

DELCO AUTOMATIC BOILERS



MODEL DB-3

THE Delco Automatic Boiler coordinates the Delco Oil Burner or Delco Gas Burner with a boiler of special design and construction for application on hot water, steam or vapor-vacuum heating systems. Most oil-fired models incorporate the famous Delco Oil Burner with the Rotopower Unit, in which the Delco Motor, air blower and oil pump are built and mounted as an integral unit on a single shaft. The boiler is honey-combed with water backed fins. When sections are fitted together, these fins form a series of passes through which the hot gases must travel on their way to the flue outlet. In this way a maximum of water backed surface is exposed to the heated gases, assuring maximum heat absorption and consequent operating economy.

Year 'round domestic hot water service is provided as standard equipment on DL models, and is available as extra equipment on other Delco Automatic Boilers. Operation of this feature is entirely automatic.

The gas-fired Delco Automatic Boiler, Model GH-4, is similar in design, construction and appearance to the oil burning units, except that a special Delco Gas Burner, which projects a long sweeping luminous flame horizontally from refractory ports into the combustion chamber, is used; together with gas operating and safety controls. It is available in models for natural, manufactured, or mixed gas.

SPECIFICATIONS AND DIMENSIONS

OIL FIRED

Model	Capacity				B.t.u. Output per Hr.	Heating Surface Sq. Ft.	Fire Box Volume Cu. Ft.	Motor			Overall Dimensions Inches			Net Weight		Domestic Hot Water Coil
	Total Tax		Net*													
	S	HW	S	HW				Hp.	Watts	R.p.m.	Length	Width	Height	S	HW	
DB-3	462	739	350	560	110,880	32.3	2.9	1/8	135	1740	37¾	27	50⅜	1025	1025	Extra
DB-4	667	1,067	505	808	160,080	46.5	4.3	1/8	135	1740	43¾	27	50⅜	1265	1265	Extra
DH-4	1,050	1,675	800	1,290	252,000	80.0	6.5	1/6	155	1740	56 5/16	33¼	54⅛	2200	2180	Extra
DL-5	1,400	2,200	1,080	1,700	336,000	104.75	8.7	1/6	155	1740	57½	33½	55¼	2682	2792	Std.
DL-6	1,725	2,750	1,335	2,140	414,000	129.5	10.75	1/6	155	1740	65½	33½	55¼	3292	3402	Std.

GAS FIRED

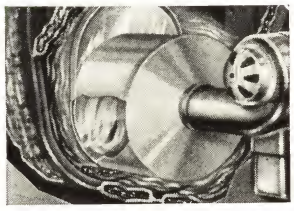
Model	Capacity				AGA B.t.u. Input per Hr.	B.t.u. Output per Hr. 80% Eff.	Heating Surface Sq. Ft.	Firebox Volume Cu. Ft.	Overall Dimensions Inches			Net Weight, Steam and Hot Water	Domestic Hot Water Coil
	Total		Net*										
	S	HW	S	HW					Length	Width	Height		
GH-4	1080	1675	800	1290	315,000	252,000	80.00	6.5	49	33¼	54	1975	Extra

*Standing radiation without domestic hot water load.

QUIK-ACTION HEAT TRANSMITTER

OIL-FIRED Models DB-3 and DB-4 incorporate the exclusive Quik-Action Heat Transmitter, streamlined fins which provide more effective heating surface for heat absorption, a completely water-backed combustion chamber, and the Delco Rotopower Unit.

This new, exclusive engineering development by General Motors and Delco engineers, the Quik-Action Heat Transmitter, provides quick radiant heating of all walls of the completely water-backed combustion chamber, meanwhile permitting a high temperature, and therefore a highly efficient combustion zone within the transmitter itself. Its use makes the previous slow heating fire clay refractory lining of the combustion chamber unnecessary. The appearance and location in the boiler of this outstanding development is illustrated at the right.



Location of Heat Transmitter with Respect to Burner

DELCO CONDITIONAIRS

MODEL DA-0

THE Delco Conditionair is a compact, completely automatic unit which provides true, winter air conditioning by circulating cleaned, humidified and properly heated air. Entering air is passed through viscous filters, where bacteria, dirt and dust are removed. Purified air is then delivered by the blowers to the heat compartment. Here the air absorbs the proper amount of moisture and then travels over the surface of the compact heat transfer unit. Air flow resistance is reduced by exclusive tear drop design. A large heating surface of copper bearing welded boiler plate steel, dotted with heat projectors, transfers heat to the flowing air. All operating parts are enclosed within an attractive steel cabinet. Complete automatic controls for all Delco Conditionairs are standard equipment. Model DA-0 is equipped with the new "Quik-Action" Heat Transmitter, which renders slow heating refractory fire box lining unnecessary.

In Delco Gas Conditionairs, there is a sufficient range in sizes to permit selection of the proper size unit for applications ranging from a small six-room house (85,000 B.t.u. heat loss or less) to a large mansion (255,000 B.t.u. heat loss or less) Delco Conditionairs, oil fired, range in size from 85,000 B.t.u. heat loss to 280,000 B.t.u. heat loss.

OIL FIRED

SPECIFICATIONS AND DIMENSIONS

Model	Hourly B.t.u. Output		Blower								Flue Outlet Size, In.	Cabinet Dimensions Inches			Net Weight, Lbs.
	Plenum Output	Register Output*	No. Units	Fan R.p.m.	Max. C.f.m. Del'y	Filters		Motors				Width	Length	Height	
						No.	Size, In.	H.p.	R.p.m.	Watts					
DA-0	100,000	85,000	1	400 700	1600	1	2x20x25	¼SP	1725	210	8	30	54½	46⅞	801
DA-1	135,000	115,000	1	400 700	1600	2	2 x 16 x 25	¼SP	1725	210	8	51⅛	48	50	960
DA-2	200,000	170,000	2	400 700	2400	4		¼SP	1725	250	8	53	64½	50	1435
DA-3	325,000	280,000	2	335 590	4000	9		¾CD	1725	780	10	70	86	55	2000

GAS FIRED

AGA Approved Model	Hourly B.t.u. Ratings**			Blower								Flue Outlet Size, In.	Cabinet Dimensions Inches			Net Weight, Lbs.
	Hourly Input	Plenum Output	Net Register Output*	No. Units	Fan R.p.m.	Max. C.f.m. Del'y	Filters		Motor				Width	Length	Height	
							No.	Size, In.	H.p.	R.p.m.	Watts					
GA-0	133,000	100,000	85,000	1	400 700	1600	2	2 x 16 x 25	¼SP	1725	210	8	30	54½	46⅞	848
GA-1	180,000	135,000	115,000	1	400 700	1600	2		¼SP	1725	210	8	51⅛	48	50	1023
GA-2	267,000	200,000	170,000	2	400 700	2400	4		¼SP	1725	250	8	53	64½	50	1357
GA-3	400,000	300,000	255,000	2	335 590	4000	9		¾CD	1725	780	10	70	86	55	2301

*Approximate transmission loss 15%, depending on duct design.
**Burners available for natural, mixed or artificial gas.

WATER HEATERS

THE Delco gas or oil fired water heater provides an abundance of hot water for household or commercial use all year 'round, automatically and at minimum cost. The storage tank is constructed of heavy gauge copper-loy steel, galvanized by the "hot-dip" method both inside and out after fabrication to insure long life. Operation is fully automatic. Both models are equipped with a positive acting immersion-type thermostatic control, adjustable to the desired range to maintain water in the tank at the proper temperature.

SPECIFICATIONS AND DIMENSIONS

Model	Fuel	Tank Capacity, Gals.	Insulation	Dimensions, Inches				Recovery Capacity (Gal. per Hr.) 60° Temp. Rise	Net Weight, Lbs.
				Height	Diam. Top	Max. Width	Max. Depth		
GW-0	Natural, Mixed or Artificial Gas	40	1¼" Rock Wool	64¼	18⅝	23	19¼	42	275
DW-0	Water White Kerosene	40	1¼" Rock Wool	64¼	18⅝	23½	19¼	22	310

FOR SUMMER CONDITIONING

ALL Delco Conditionair units may be used for year 'round air conditioning through the addition of an evaporator coil assembly to be connected to a Frigidaire condensing unit. Where year around air conditioning is contemplated either immediately or at some time in the future, the duct system should be designed for proper distribution of the air in summer as well as winter. This may be accomplished at small additional expense if done at the time of the original installation, but may be quite expensive if changes must be made at a later date.

Where summer circulation only is desired, a summer switch connected to blower motor for operation of fan can be installed (optional extra equipment on DA-0, DA-1, GA-0, GA-1; standard on all other models).

MODEL DA-2 WITH COOLING ATTACHMENT

YEAR 'ROUND RESIDENTIAL AIR CONDITIONING UNITS

MODEL HC-20

DELCO Residential air conditioning units are furnished in two sizes and styles and are particularly designed for use with Delco Automatic Boilers. They are of the horizontal, suspended type, and operate in conjunction with a duct system to the spaces to be conditioned.

The units may be combined with a steam or hot water system for winter air condtiioning of all or a portion of a residence, or may be used for complete year 'round air conditioning by the addition of Frigidaire cooling coils and condensing unit, or water cooling coils may be used.

SPECIFICATIONS AND DIMENSIONS

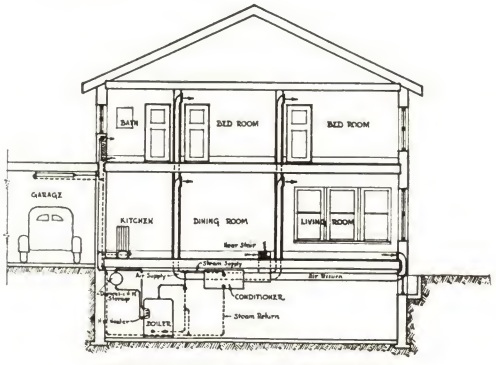
Model	Total Heating Capacity B.t.u.'s per Hour		Nominal Tonnage (Cooling)	C.f.m.	Motor Hp.	Dimensions Inches			Shipping Weight, Lbs.
	Steam	Ht. Water 180° F.				Length	Width	Height	
HC-20	47,000-93,500	43,500-92,000	2	500-1,100	STD 1/4 OPT 1/3	63 1/8	28	22 3/4	470
HC-40	79,000-130,000	85,000-120,000	4	1,000-2,000	STD 1/2 OPT 3/4	60 3/4*	61 3/8*	18 3/8	750

*Includes exterior motor. Actual size of unit: 48 3/4 in. long, 5 1/8 in. wide.

TYPES OF APPLICATIONS

Delco Residential air conditioners are designed for four major types of application:

1. "Split System" heating and humidifying units in connection with an external source of steam or hot water together with separate radiators also connected to the boiler (See fig.).
2. As "Indirect" heating and humidifying units for use with external source of heat where no radiation is used.
3. As year 'round air conditioning units, requiring external heating and cooling sources.
4. HC-20 may also be used as a humidifier, by substituting a tempering coil.



TYPE "1" APPLICATION

Your local distributor of Delco-Frigidaire products has available for your assistance sound engineering information on the application of automatic heating and air conditioning equipment.

Feel free to call on him at any time he can be of assistance to you. With the wide variety of equipment available to him, his recommendations need never be influenced by the fact that he does not have the type of equipment best suited to the job.

The Delco-Frigidaire distributor can be located by reference to the classified section of your telephone directory. If you prefer, write directly to—

DELCO-FRIGIDAIRE CONDITIONING DIVISION
General Motors Sales Corporation
DAYTON, OHIO

GM
GENERAL MOTORS

DELCO-FRIGIDAIRE

Automatic Heating·Cooling· and Air Conditioning Equipment